# purple mash

# Computing Scheme of Work

# Unit 6.2 – Online Safety

# Contents

# Introduction

For these sessions, pupils will need to have their own individual logins to Purple Mash.

If you are currently using a single login per class or group and would like to set up individual logins yourself, then please see our guide to doing so at [Create and Manage Users](#). Alternatively, please contact support at support@2simple.com or 0208 203 1781.

Check with the Purple Mash Administrator in your school (usually the coordinator) if you need to change the pupils' passwords. You can create picture passwords for the younger pupils but if you're not sure how to do this just give the 2Simple office a call and we can talk you through it or set them up for you!

Your school administrator can put a shortcut to your school's Purple Mash portal on the devices so there is an icon to use for Purple Mash to save time when the pupils are logging in. The tool to do this can be found in the Admin tab:
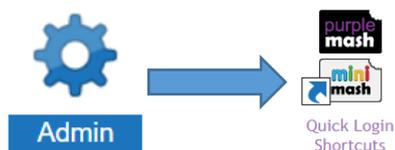
# Year 6 – Medium-term Plan

| Lesson | Aims | Success Criteria |
|---|---|---|
| [1] | • Identify benefits and risks of mobile devices broadcasting the location of the user/device, e.g. apps accessing location.<br>• Identify secure sites by looking for privacy seals of approval, e.g. https, padlock icon.<br>• Identify the benefits and risks of giving personal information and device access to different software. | • Pupils have used the example game and further research to refresh their memories about risks online including sharing location, secure websites, spoof websites, phishing and other email scams.<br>• Pupils have used the example game and further research to refresh their memories about the steps they can take to protect themselves including protecting their digital footprint, where to go for help, smart rules and security software. |
| [2] | • To review the meaning of a digital footprint and understand how and why people use their information and online presence to create a virtual image of themselves as a user.<br>• To have a clear idea of appropriate online behaviour and how this can protect themselves and others from possible online dangers, bullying and inappropriate behaviour.<br>• To begin to understand how information online can persist and give away details of those who share or modify it. | • Pupils understand how what they share impacts upon themselves and upon others in the long-term.<br>• Pupils know about the consequences of promoting inappropriate content online and how to put a stop to such behaviour when they experience it or witness it as a bystander.<br>• **Extension:** Pupils' actions demonstrate that they also feel a responsibility to others when communicating and sharing content online. |
| [3] | • To understand the importance of balancing game and screen time with other parts of their lives, e.g. explore the reasons why they may be tempted to spend more time playing games or | • Pupils can take more informed ownership of the way that they choose to use their free time. They recognise a need to find a balance between being active and digital activities. |

| | | |
|---|---|---|
| | find it difficult to stop playing and the effect this has on their health.<br><br>• To identify the positive and negative influences of technology on health and the environment. | • Pupils can give reasons for limiting screen time.<br>• Pupils can talk about the positives and negative aspects of technology and balance these opposing views.<br>• **Extension:** Pupils have an internalised in-depth understanding of the risks and benefits of an online presence. |

# Lesson 1 – Message in a Game

## Aims

- Identify benefits and risks of mobile devices broadcasting the location of the user/device, e.g. apps accessing location.
- Identify secure sites by looking for privacy seals of approval, e.g. https, padlock icon.
- Identify the benefits and risks of giving personal information and device access to different software.

## Success criteria

- Pupils have used the example game and further research to refresh their memories about risks online including sharing location, secure websites, spoof websites, phishing and other email scams.
- Pupils have used the example game and further research to refresh their memories about the steps they can take to protect themselves including protecting their digital footprint, where to go for help, smart rules and security software.

## Resources

Unless otherwise stated, all resources can be found on the main unit 6.2 page. From here, click on the icon to set a resource as a 2do for your class. Use the links below to preview the resources; right-click on the link and 'open in new tab' so you don't lose this page.

- 2DIY3D Online Safety Game example, set this as a 2do.

## Activities

1. If the class have been following the scheme in previous years, then they will have come across many terms associated with online safety.
2. The first activity today is to play a 2DIY3D game where online risks and safety features are represented by symbols. To win the game they need to collect all the safe symbols and avoid the risks.
3. There are eight risks and 8 safety features. They should work out what all the 16 symbols are and what they represent to determine whether they are good or bad to online safety.

4. Pupils should be given time to play the game and notes down the 16 symbols and their meanings. Then go over them as a class. This will inform you of gaps in the pupils' knowledge for later in the session.

| Risks: | | Safety Features | |
|---|---|---|---|
| Symbol | Meaning | Symbol | Meaning |
|  | PEGI Rating 18 – content for 18-year olds and over (Y3, lesson 3) |  | PEGI Rating U – content for everyone (Y3, lesson 3) |
|  | Spoof website (Y3, lesson 2) |  | Secure websites (Y4, lesson 1) |
|  | Computer virus (Y4, lesson 2) |  | Teacher – trusted adult to tell (Y3, lesson 3 and others) |
|  | Location sharing (Part of digital footprint work Y2, lesson 3 and Year 3, lesson 1) |  | Padlock symbol for secure websites (Year 4, lesson 1) |
|  | Spam email (Year 4, lesson 1) |  | Securing all your devices with strong passwords (Year 5, lesson 2) |
|  | Malware (Year 4, lesson 2) |  | Firewall virus protection (Year 4, lesson 1) |
|  | Identity theft (Y4, lesson 1) |  | SMART rules (Year 5, lesson 1) |
|  | Malware and AdFly (Year 4, lesson 2) |  | Tell a trusted adult (SMART rules) (Y3, lesson 3 and others) |
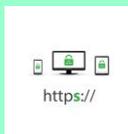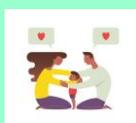
5.    Tell the class that they are going to create a game using 2DIY - Games or 2Quiz, 2DIY 3D or 2Code that uses online safety as the theme.
**NB** Pupils will already need to have had some experience using the programs to be able to make a game.

6.    You might want them to focus on an aspect that they did not recognise from the example game and research this area of online safety. The pupils will need to think about the following.

7.    Give the pupils the opportunity to explore 2DIY and 2DIY 3D and 2Code to find out which would be the best option for the game that they want to create.

- What type of game they are going to create? They will need to familiarise themselves
- with the different types of games creators on Purple Mash and how they function.
- They will need to plan their game: think about the characters and what the message of the game is.
- They will need to consider whether their game will have different levels, and which would be the most appropriate tool to use in Purple Mash if it did.

8.    Let the pupils explore and start to create their games. They will need time to continue creating their games either using Purple Mash at home or at some other point during the school week.

**Extension:**

Ask pupils consider whether allowing apps / websites to access user location information is a good idea.
Pupils should create a positive / negative list of reasons.
If struggling with examples, provide them with prompts:

➢  You have twisted your ankle in the middle of the countryside and cannot walk.
➢  You have downloaded a new app that shows you where your friends are, but you have now fallen out with one of them.
➢  A parent is getting ready to drive to a theme park but does not know the way there.
➢  The police are trying to find a member of the public who has gone missing.
➢  You played an online game with a stranger and beat them. They are not happy and have threatened you.
➢  A parent has lost their iPhone.
➢  Your social media settings allow geotagging.
➢  You posted the app details of your last fitness run because you are really pleased with how quickly you ran 5km.
➢  Ask pupils the question: What is the advantage of the setting "Allow location to be accessed whilst using app" that some phones have an option for?

**Need more support? Contact us:**

Tel: +44(0)208 203 1781 | Email: support@2simple.com | Twitter: @2simplesoftware

# Lesson 2

## Aims

- To review the meaning of a digital footprint and understand how and why people use their information and online presence to create a virtual image of themselves as a user.
- To have a clear idea of appropriate online behaviour and how this can protect themselves and others from possible online dangers, bullying and inappropriate behaviour.
- To begin to understand how information online can persist and give away details of those who share or modify it.

## Success criteria

- Pupils understand how what they share impacts upon themselves and upon others in the long-term.
- Pupils know about the consequences of promoting inappropriate content online and how to put a stop to such behaviour when they experience it or witness it as a bystander.
- **Extension:** Pupils' actions demonstrate that they also feel a responsibility to others when communicating and sharing content online.

## Resources

Unless otherwise stated, all resources can be found on the main unit 6.2 page. From here, click on the icon to set a resource as a 2do for your class. Use the links below to preview the resources; right-click on the link and 'open in new tab' so you don't lose this page.

- 2Investigate database Applicants Database, save this to a class folder for pupils to access.
- PDF file Applicant Data: this is to be used for teacher demonstration in step 4.
- Digital Footprint Detectives sheet – print out one for each child.
  - o Optional (if pupils have not followed these units in previous year groups) Digital Footprint Slideshow
  - o Digital Footprint Quiz
  - o Digital Connections
- Digital Footprint writing template; set this as a 2do for the class.
- Print the Screen-Time Record Card. Each child will need a copy (each sheet has two record cards and can be cut in half), **this is to hand out at the end of the session for pupils to complete over the week in preparation for the next lesson.**

# Activities

1. Pupils first encountered the term digital footprint in Y2, lesson 3, Y4, lesson 1 (steps 8-11). If pupils have not followed the scheme in previous years, it might be worth reviewing the content of these lessons with pupils and using the prepared resources.

2. Open the Applicants database. This is a simulation of applicants to a college funded by the local premier league football team Halliwell FC. The college has used online searches to fill in the information that they can find to help them assess who should be offered a place. Look at the record structure by clicking the ⊞ button.

3. Pupils need to use the database to answer the questions about the candidates on the Digital Footprints Database sheet.

4. Once pupils have done this, discuss the information using the completed resource Applicant Data.

5. Ask the question posed about Janey:

> **Janey has a great application form, is her digital footprint information suitable?**
> She appears to have no digital footprint, this is not necessarily a good thing given the way that society is moving towards online presence. It might be better to cultivate a positive digital footprint going forwards.

6. Next, use the writing frame to discuss and record the following questions. Pupils could make notes on the writing frame as they go. Select which of these topics are relevant to the individual circumstances of your class:

> **Is a digital footprint a bad thing?**
> No: We are all online so much nowadays and the pupils will be adding to their online presence as they get older and access more sharing platforms ask pupils to suggest them (e.g. Instagram, Pinterest, Twitter and more are constantly developed.
> It is important to keep control of your own digital footprint as it reflects how others see you. Much recruitment is now done via social networking platforms such as LinkedIn and therefore your future could depend upon maintaining a good image of yourself online, not just if your ambitions are to be a YouTube star!

**Do you have complete control over what is in your digital footprint?**

No, but that also makes you responsible for others' digital footprints. Remember to ask before tagging others in photos or sharing photos of others.

**What things out of your control can affect it?**

Digital altering of images is one. Have any of the pupils used image altering apps or software; what have they been able to do (they will have done this is lesson 2 of unit 5.2 – if they did it) but have probably used apps to do the same thing. Can they imagine ways that images could be altered in a way that would negatively impact your digital footprint? Once an image is out there it is really hard to get rid of. Some apps such as Snapchat say that images are temporary, but they can easily be screenshot and then they are out of your control.

**Do you always read the small print when installing an app?  What things could the small print authorise?**

Access to your contacts, to your photos to your data, even to post on your behalf in social media. – they can then sell this information to others. Some websites allow you to login to them using your login from another site such as Facebook, this then means you lose control of your data, even if your privacy settings are tight on the original app, you are still authorising the second app to take your data and possibly sell it on.

Many search engines are also businesses and can use and sell on your data to target you with adverts or sell your interests to other companies who can target you. Look for the privacy setting on your search engine – you can usually find this in 'settings'. There are lesser known search engines who promise not to sell your information; do a search for private search engines and explore what they say about themselves and data-privacy.

**Need more support? Contact us:**

Tel: +44(0)208 203 1781 l Email: support@2simple.com l Twitter: @2simplesoftware

**Personal information or opinions sent to one person can be shared with a larger audience.**
Think where this could end up. A 'funny' video you share now, could not seem so funny in 5 years' time and could even stop you getting a job. Sharing a funny tweet which originated from an offensive organisation will link you with that organisation.

**Think about the things that people thought were acceptable even 25 years ago that are not now;** this might include racism, sexism, homophobia, transphobia. Many of these were thought acceptable in the past by some people but opinion has completely changed to the extent that you can now be arrested for them. You must use you own conscience as a guide however funny something seems now.

**Metadata can track images back to you once you have shared them**
It can contain information such as how it was produced, where and when, the name of the creator

**Note for teacher,** you might want to extend this to implications of sending intimate images and sexting.

At the end of the lesson, hand out the record-card to be completed for the next lesson. Pupils should record how much time they spend on (any) screen, which device and what they were doing as well as off-screen activities that they do including hours of sleep. Emphasise that you are not going to 'mark' individual responses and that pupils can choose to keep their information private if they wish.

**Extension:**

Consider this situation:

A child took a photo of a classmate that they found funny, but the subject of the photo did not. They asked for it to be deleted.
Before it was deleted, the child who took the photo thought they would share it with just two friends. Now, the sharing of that image is out of control. The two friends shared it with two of their friends, and each of those friends shared it with two more friends and this has now 'gone viral' and is happening every five minutes. How many people could have seen the image after only two hours?

(Children might start with a simple branching structure, but then realise that the total doubles each line and begin calculating by x2. The answer is 2 to the power of 24, or 16,777,216 people).

How does this make them feel when they see this figure?

Did they imagine it would be an amount like that?

**Need more support? Contact us:**

Tel: +44(0)208 203 1781 | Email: support@2simple.com | Twitter: @2simplesoftware

# Lesson 3 – Screen time

**Note for teacher:** If the scheme has been followed all the way through then the pupils will have done a similar lesson in year 4, it might be useful to reflect upon whether they made changes and if these changes had a lasting effect.

## Aims

- To understand the importance of balancing game and screen time with other parts of their lives, e.g. explore the reasons why they may be tempted to spend more time playing games or find it difficult to stop playing and the effect this has on their health.

- To identify the positive and negative influences of technology on health and the environment.

## Success criteria

- Pupils can take more informed ownership of the way that they choose to use their free time. They recognise a need to find a balance between being active and digital activities.
- Pupils can give reasons for limiting screen time.
- Pupils can talk about the positives and negative aspects of technology and balance these opposing views.
- **Extension:** Pupils have an internalised in-depth understanding of the risks and benefits of an online presence.

## Resources

Unless otherwise stated, all resources can be found on the [main unit 6.2 page](). From here, click on the icon to set a resource as a 2do for your class. Use the links below to preview the resources; right-click on the link and 'open in new tab' so you don't lose this page.

- Completed record cards handed out in the end of the last session.
- [Screen-Time 2Investigate Database](). You should save this in the shared class folder in Purple Mash but do not set the database to be collaborative yet.
- [Screen Time Study writing frame]() to be set as a 2Do.
- [Improving Lives with Technology](); This writing frame can be found in Computing > Writing Projects. Some pupils might choose to research this area in step 13 of the lesson and use this alternative writing frame.

**Need more support? Contact us:**

Tel: +44(0)208 203 1781 | Email: support@2simple.com | Twitter: @2simplesoftware

# Activities

1. Ask pupils to look at their record cards and to work out the following:

   - The total screen time for the week in minutes.
   - The total non-screen time activity in minutes.
   - Which day had the most screen time
   - Which day had the least screen time.
   - Average hours of sleep per night (you might have to show pupils how to calculate this).

2. Ask them to (privately) consider whether they think they have the right balance between screen time and other activities.

3. Open the Screen-Time Database on the whiteboard. Explain that the 2Investigate database can be used to collect everyone's information easily. Each child will be creating their own record of data. Click on the Design Database button .to look at what the record will contain. Each question is called a 'field' of the database. This one contains the following fields:

   - Screen time and activity time in minutes; as previously calculated.

   - Screen-based activities; at this point, click on the pencil button for this field. You will see that there is list of activities. Ask pupils for any other required activities to include here and add them. Pupils should select the main activity they do.

   - Highest/Lowest screen-time day, pupils will select which day they had the lowest or highest screen time.

   - Control of screen-time; this is a yes/no question. If pupils' screen time is controlled by adult intervention or timers or a timetable.

   - Average hours of sleep per night

   - Experienced upsetting content; this is a yes/no question. If they have ever been upset by something online, they should answer yes.



4. Once you are happy with the record structure, click the collaboration button . You might be prompted to save again, then the button should indicate the database is now collaborative: .

5. Pupils should open 2Investigate on their own devices. They should then click on the Add Record button  and input their details. For Data Name, pupils can use their first name (you could anonymise this by giving each child a letter or random word to insert if you wish).

**Need more support? Contact us:**

Tel: +44(0)208 203 1781 **|** Email: support@2simple.com **|** Twitter: @2simplesoftware

6. The database should update in real-time on the whiteboard. When all pupils have input their data, it will look something like this:
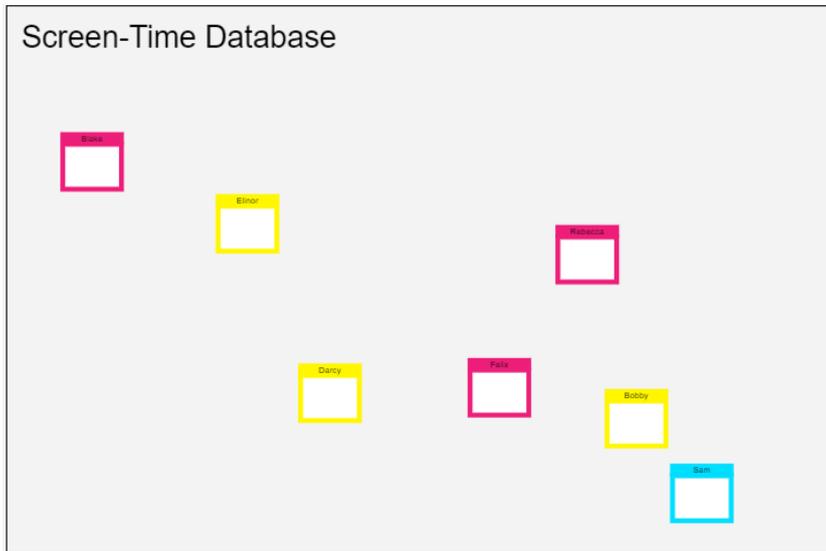


7. Now try making some graphs to find out about the class' screen time information. Click on the Charts button . On the Charts screen, you can select the field to examine in the drop-down
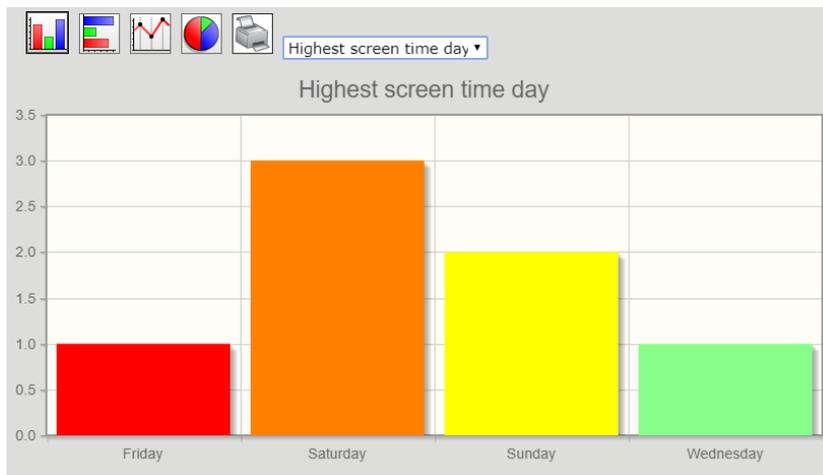


box, the example below shows Highest screen time day.

8. You can also create different types of charts using the buttons at the top, this example shows a pie-chart of the different on-screen activities.
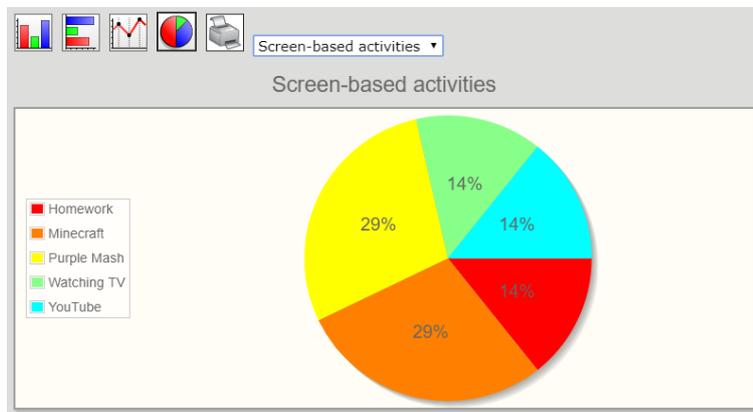


9. Use your class' results to discuss how they feel about the amount of screen time they have in relation to the amount of time spent on other activities. Discuss the following:

- Positive and negative influences of technology on their education, on their physical health, on mental wellbeing, on the environment.
- Can they suggest reasons to balance screen-based activities with other activities in their life and what will prevent them from doing so; temptation, peer pressure, used to a routine, financial, weather, etc.
- Do they see screen-time restriction as a bad thing imposed on them or can they see why such restriction is in place in some households?
- How much screen time do you think that pupils of different ages should be allowed?
- The effect of screen time on sleep; research shows that it is bad for people to look at screens before bed. It can lead to later bedtimes, difficulty getting to sleep and poorer quality of sleep. Many studies have shown how lack of sleep impacts on many areas of life including how well you do at school and your behaviour. Pupils need a lot more sleep than adults, pre-teens should get between nine and 12 hours. Are they getting enough sleep?

10. Show pupils how to take a screenshot of a graph. The method will be device dependent. On a PC use the Snipping Tool and then save the image to the computer. On an iPad click the home button and the off/on button at the same time. The image will save to the Photos app and can then be cropped if needed. On many Android tablets, click the off/on button and volume down button at the same time, then crop the image which will be found in the Gallery.

11. Ask pupils to create one of the graphs on their own devices and then to save. They should then open the writing frame set as a 2do and insert their graph into the picture box on the writing frame (using the green up arrow).

12. Before completing the writing frame, turn to the last question about upsetting content. You might wish pupils to share what sort of things they have seen or experienced and your response will depend upon their experiences. The important teaching point is to give pupils the knowledge of what to do in this situation. Discuss:

- Applying the screenshot technique to save any upsetting messages that they receive to save evidence to show an adult.

- How to report upsetting content within an app e.g. the Report to teacher button in 2Email
   and report buttons in online platforms.

- Who to talk to if anyone or anything upsets them online.

13. They should complete the writing frame (or the alternative noted in the Resources section), recording the class discussion and their opinions and strategies. They could consider various aspects or concentrate on just one, doing further research into the area themselves. If they completed this lesson in year 4, then it would be better for pupils to research one area in more depth with different pupils allocated different areas. They should then share their results on a class blog or display board.

---

**Extension:**

Click on the "statistics and report' button and use the reports feature to create individual reports for each child within the class. (If children have been following the scheme in previous years – Unit 5.4 - they will have come across this feature before). Because of the way that the data has been recorded (Yes / No answers and figures for minutes), how can a report be written so that it makes sense?
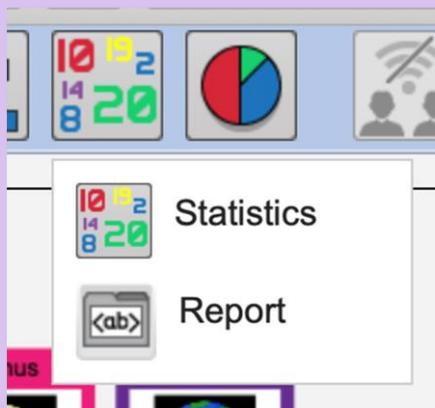


See the example below of a completed report for one child.

---

Example of a completed report for one child.

Bill  has spent 150 minutes looking at a computer screen during the week. They spent 40 minutes being active, and used the screen mostly for Purple Mash.
Their highest screen time day was Saturday, and their lowest was Monday.
When asked if their screen time is controlled, Bill said No, and they said Yes when asked about experiencing upsetting content.
Finally, Bill experiences around 7 hours of sleep per night.

Created using the following structure:

<<First name>> has spent<<Total screen time (mins)>> minutes looking at a computer screen during the week. They spent<<Total activity time (min)>> minutes being active and used the screen mostly for <<Activities done on screen>>.
Their highest screen time day was <<Highest screen time day>>, and their lowest was <<Lowest screen-time day>>.
When asked if their screen time is controlled, <<First name>> said <<Is your screen time controlled>>, and they said <<Experienced upsetting content?>> when asked about experiencing upsetting content.
Finally,<<First name>> experiences around <<Average hrs of sleep per night>> hours of sleep per night.

**Need more support? Contact us:**

Tel: +44(0)208 203 1781 I Email: support@2simple.com I Twitter: @2simplesoftware

# Assessment Guidance

The unit overview for year 6 contains details of national curricula mapped to the Purple Mash Units. The following information is an exemplar of what a child at an expected level would be able to demonstrate when completing this unit with additional exemplars to demonstrate how this would vary for a child with emerging or exceeding achievements.

| Assessment Guidance | |
|---|---|
| Emerging | Pupils can refer to the SMART rules to guide them online. They can navigate networks within Purple Mash (Work folders, class folders and group folders), the local network (school) and the Internet (using as a source for research or leisure time). They use these networks to collaborate with support using Purple Mash tools such as 2Write and 2Connect. |
| | They can use search tools and have an awareness of the need to select sources carefully. |
| | They can recognise features online that are risks and those that exist to protect them (lesson 1). Pupils are aware that their actions online have an impact not only on themselves but on others as well. They know to ask for help if they are worried or distressed by something online. |
| Expected | Pupils have a good knowledge of the benefits and risks to working collaboratively. They have no trouble navigating networks within Purple Mash (Work folders, class folders and group folders), the local network (school) and the Internet (using as a source for research or leisure time). They use these networks to collaborate using Purple Mash tools such as 2Write, 2Connect and 2Blog and can use a variety of networked devices such as webcams, online tools, printers, and tablets in a connected way for their educational benefit. |
| | Pupils can use search tools and routinely try to verify the validity and reliability of their sources. They look for corroborating sources for information and enter keywords that help them to choose the best results. |
| | Pupils demonstrate an understanding of their responsibility to others as well as to themselves when communicating and sharing content online. They can identify a variety of risks and benefits of technology (lessons 1 and 3). They feel confident in having strategies to help them promote a positive online image of themselves in their digital footprint. |
| | Pupils can identify location sharing as a risk to online safety in lesson 1 and could relate this to work done on protecting their identifying private information. |
| | Pupils were able to identify the padlock and https as aids to the online safety in lesson 1 and could explain what these means referring to the work that they did on this in previous years' online safety units. |
| | Pupils's work in lesson 1, indicates that they have a clear understanding of terms such as Computer virus, Location sharing, phishing scams, spam email, Malware and Identity theft. In lesson 2, they make sensible contributions to the question of what risks there are when installing an App and the possible risks hidden in the small print. |

**Need more support? Contact us:**

Tel: +44(0)208 203 1781 I Email: support@2simple.com I Twitter: @2simplesoftware

## Assessment Guidance

| | |
|---|---|
| | Pupils's work as digital footprint detectives in lesson 2 demonstrates that they understand the impact of a positive and negative digital footprint and how to take control of their own online virtual image. |
| | Most pupils can balance the positive impact of technology with the reasons for limiting screen time that include the effect on physical and mental health. In lesson 3, they were able to reflect on their own screen time and collective class screen time and begin to make informed decisions about when to limit their own screen time |
| | Having studied this aspect in depth in year 5 (lesson 3), pupils routinely include citations in their research work across subjects. They also take care to credit the artist when using images from the Internet. In lesson 2, as part of the discussion surrounding digital footprints, pupils explored the existence of metadata to track the source of images. |
| | Having studied this aspect in depth in year 5 (lesson 2, step 11+ and lesson 3, step 6+), pupils take care to credit the artist when using images from the Internet and know how to explore the rights and permissions associated with an image online. They can explain the difference between copyright and privacy and are mindful of both aspects when working with images. |
| | Most pupils can make informed choices when communicating online for example selecting the appropriate form of communication for its purpose and audience. They can discuss the use of instant messaging in social contexts, aware of the pros and cons of using such tools. |
| Exceeding | Pupils view their own/school devices as a means to access a wealth and mixture of networked and local resources. They use these in an integrated way; for example, they can take information and images from one source, compare them to others, include them in their written work alongside their own original images and text to enhance their own understanding and produce high quality comprehensive work. They are implicitly aware of the benefits and risks to working collaboratively. They navigate networks within Purple Mash (Work folders, class folders and group folders), the local network (school) and the Internet and use these networks to collaborate using Purple Mash tools such as 2Write, 2Connect and 2Blog. |
| | Pupils can use search tools effectively, routinely verifying the validity and reliability of their sources. They look for corroborating sources for information and enter keywords that help them to choose the most suitable results. They are aware that search engines are also often money-making ventures for their providers and that this has personal privacy implications. They know where to look to investigate their privacy settings on search engines. |
| | Pupils have an internalised in-depth understanding of the risks and benefits of an online presence (lessons 1 and 3). Their actions demonstrate that they also feel a responsibility to others when communicating and sharing content online. They feel confident in having strategies to help them promote a positive online image of themselves and deal with issues that might arise in the future. |